

REMARKS

Summary of the Office Action

Claims 1, 11 and 16 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishikawa et al. (US 6,063,527) and further in view of XIA et al. ("Soft Lithography." Angew. Chem. Int. Ed., 1998, pp. 550-575).

Summary of the Response to the Office Action

Applicant has amended claims 1 and 16 to further define the invention. Accordingly, claims 1-20 are pending for further consideration.

All Claims Comply with 35 U.S.C. § 112

Claims 1, 11 and 16 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully disagrees.

In the Final Office Action, the Examiner alleges that the claim limitation, "wherein the second groove has a width greater than the first groove and smaller than the third groove" is not explicitly disclosed in the specifications. Applicant respectfully submits that support for this newly added feature can be found in at least paragraphs [0037], [0042] and [0046] and FIGs. 3A to 5C. It is stated in paragraph [0037] that "a volume of the red sub-color filter 104 may be substantially the same as the volume of the first channels CH1 shown in FIG. 3C or the first grooves A shown in FIG. 3C." Further, it is stated in paragraph [0042] that "a sum of volumes

of the red and green sub-color filters 104 and 108 may be substantially the same as a volume of the second grooves A2 shown in FIG. 4C” and it is stated in paragraph [0046] that “a sum of volumes of the red, green and blue sub-color filters 104, 108 and 112 may be substantially the same as a volume of the third groove A3 shown in FIG. 5B.” As a result, these statements state that the volume of the second groove is substantially the same as the sum of the first groove and the green sub-color filter and the volume of the third groove is substantially the same as the sum of the second groove and the blue sub-color filter. Accordingly, the volume of the second groove is greater than the volume of the first groove and the volume of the third groove is greater than the volume of the second groove. Since the volume is proportional to the width with equal height and equal length, paragraphs [0037], [0042] and [0046] clearly and affirmatively state that the second groove has a width greater than the first groove and smaller than the third groove. In addition, FIGs. 3A to 5C clearly and affirmatively illustrate that the second groove has a width greater than the first groove and smaller than the third groove. Accordingly, Applicant respectfully requests that the rejection of claims 1, 11 and 16 under 35 U.S.C. § 112, first paragraph, be withdrawn.

All Claims Define Allowable Subject Matter

Claims 1-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hishikawa and XIA et al. Applicant respectfully traverses the rejection for at least the following reasons.

Independent claim 1, as amended, recites a method of forming a color filter layer including, in part, “forming a first sub-color filter on a substrate by placing a first mold having at

least a first groove on the substrate such that the first groove and the substrate constitute a first channel and injecting a first color resin into the first channel ...; forming a second sub-color filter on the substrate by placing a second mold having at least a second groove on the substrate such that the second groove, the first sub-color filter and the substrate constitute a second channel and injecting a second color resin into the second channel ...; forming a third sub-color filter on the substrate by placing a third mold having at least a third groove on the substrate such that the third groove, the first sub-color filter, the second sub-color filter and the substrate constitute a third channel and injecting a third color resin into the third channel, ..., wherein the second groove has a width greater than the first groove and smaller than the third groove.” The cited references do not teach or suggest at least this feature of the claimed invention.

Accordingly, Applicant respectfully submits that claim 1 and claims 2-10, which depend therefrom, are allowable over the cited references.

Independent claim 11 recites a method of forming a color filter layer including, in part, “... attaching a first mold having at least a first groove on a substrate and forming a first channel by the first groove and the substrate; ... attaching a second mold having at least a second groove on the substrate and forming a second channel by the second groove, the first sub-color filter and the substrate: ... attaching a third mold having at least a third groove on the substrate and forming a third channel by the third groove, the first sub-color filter, the second color-filter and the substrate; and ..., wherein the second groove has a width greater than the first groove and smaller than the third groove.” The cited references do not teach or suggest at least this feature of the claimed invention.

In rejecting the claim 11, the Examiner merely states what Nishikawa et al. teaches, but disregards the limitations, "... forming a second channel by the second groove, the first sub-color filter and the substrate; ... forming a third channel by the third groove, the first sub-color filter, the second color-filter and the substrate" None of the channels of Nishikawa et al. are formed by the second groove, the first sub-color filter and the substrate. Further, none of the channels of Nishikawa et al. are formed by the third groove, the first sub-color filter, the second color-filter and the substrate. As a result, the Examiner fails to meet the Examiner's burden of *prima facie* obviousness at least because none of the cited references teaches or suggests forming a second channel by the second groove, the first sub-color filter and the substrate and forming a third channel by the third groove, the first sub-color filter, the second color-filter and the substrate. Accordingly, Applicant respectfully submits that claim 11 and claims 12-15, which depend therefrom, are allowable over the cited references.

Independent claim 16, as amended, recites a method of fabricating a color filter substrate for a liquid crystal display device including, in part, "... attaching a first mold having a first groove on the substrate, the first groove corresponding to the first region, wherein the first groove and the substrate constitute a first channel; ... attaching a second mold having a second groove on the substrate, the second groove corresponding to the first and second regions, wherein the second groove, the first sub-color filter and the substrate constitute a second channel; ... attaching a third mold having a third groove on the substrate, the third groove corresponding to the first, second and third regions, wherein the third groove, the first sub-color filter, the second sub-color filter and the substrate constitute a third channel, and wherein the

second groove has a width greater than the first groove and smaller than the third groove;”

The cited references do not teach or suggest at least this feature of the claimed invention.

In rejecting claim 16, the Examiner merely states what Nishikawa et al. teaches, but disregards the limitations, “... wherein the second groove, the first sub-color filter and the substrate constitute a second channel; ... wherein the third groove, the first sub-color filter, the second sub-color filter and the substrate constitute a third channel” None of the channels of Nishikawa et al. are constituted by the second groove, the first sub-color filter and the substrate. Further, none of the channels of Nishikawa et al. are formed by the third groove, the first sub-color filter, the second color-filter and the substrate. As a result, the Examiner fails to meet the Examiner’s burden of *prima facie* obviousness at least because none of the cited references teach or suggest a second channel constituted by the second groove, the first sub-color filter and the substrate and a third channel constituted by the third groove, the first sub-color filter, the second color-filter and the substrate. Accordingly, Applicant respectfully submits that claim 16 and claims 17-20, which depend therefrom, are allowable over the cited references.

For at least the above reasons, Applicant respectfully asserts that claims 1-20 are neither taught nor suggested by the applied prior art references. Thus, Applicant respectfully asserts that the rejections under 35 U.S.C. § 103(a) should be withdrawn because the above-discussed novel combination of features are neither taught nor suggested by any of the applied references.

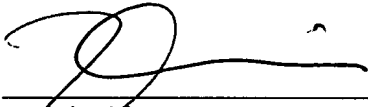
CONCLUSION

In view of the foregoing, Applicant respectfully requests entry of the amendments, reconsideration and the timely allowance of all pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such as an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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